



# **Trans-Lake Washington Project**

Washington State  
Department of Transportation  
Sound Transit

## **TECHNICAL MEMORANDUM**

Date: **August 14, 2002**  
To: **Les Rubstello, WSDOT**  
From: **Dave Hilderbrant**  
Subject: **Non-motorized Path Termination at Montlake Blvd.**  
cc: **Jeff Peacock, Lindsay Yamane, Kirk Wilcox, Brad Phillips**  
E-File ID: **Ped-bike Path Termination at Montlake Tech Memo.doc**  
Filing Code: **080501**

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This memo is to document options considered for termination at the west end of the SR 520 non-motorized path other than the alignment shown in the preliminary design plans. The alignment shown in the preliminary design plans continues along the north side of SR 520 from the floating bridge to Montlake Boulevard. At Montlake boulevard there is the option to go under the street and continue west toward the Montlake playfield or access Montlake Boulevard at street level. The trail segment near Montlake Boulevard adds 14 to 28 feet to the total width of the highway section. The maximum width of 28 feet is needed where the path splits to connect to Montlake Boulevard and to tunnel under Montlake Boulevard. The path is displayed in the attached preliminary design sheet labeled Montlake Option I. The design team was requested to consider opportunities to reduce the width by placing the path elsewhere.

One concept that was only briefly considered was to bridge the path over the westbound lanes of SR 520 near the existing Park Drive structure. The path would touch down in the median flyer stop, stay above the passenger platform in a mezzanine-type configuration, pass under the Montlake Boulevard structure then dive below the grade of SR 520 between the westbound roadway and the westbound transit on-ramp from the flyer stop. After dropping below the level of SR 520 the path would cross under the eastbound lanes and connect with the Bill Dawson trail to the Montlake Playfield. This concept was not carried to a high level of detail because of the following:

1. There are vertical difficulties connecting to the flyer stop from the vicinity of Park Drive. The path connection would need to elevate to cross over the westbound SR 520-Montlake off-ramp and westbound mainline lanes then drop to connect into the flyer stop area. The structure would need to have several hundred feet of extra length in order to keep grades to an acceptable level. The alignment would need to be similar to the Park Drive pedestrian crossing included in Alternative 3 Option I. In that case, the path has been lengthened 400 feet in order to keep the grade at a maximum of 6%.

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### **Trans-Lake Washington Project Team**

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2. The flyer stop would have to be widened to fit the path through the stairs and elevator for access to the pedestrian platform. The additional widening would offset any benefit from moving the path from the north side of the highway.

Other options considered eliminate the grade separation at Montlake Boulevard. The first would include the extension of the path to Montlake Boulevard, but it would end at an at-grade crossing at the signalized intersection for the westbound on- and off-ramps. The Bill Dawson trail would continue to the west of the intersection. By eliminating the tunnel under Montlake Boulevard, this option would reduce the footprint width by 14 feet for approximately 350 feet starting at Montlake Boulevard.

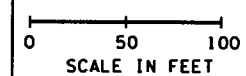
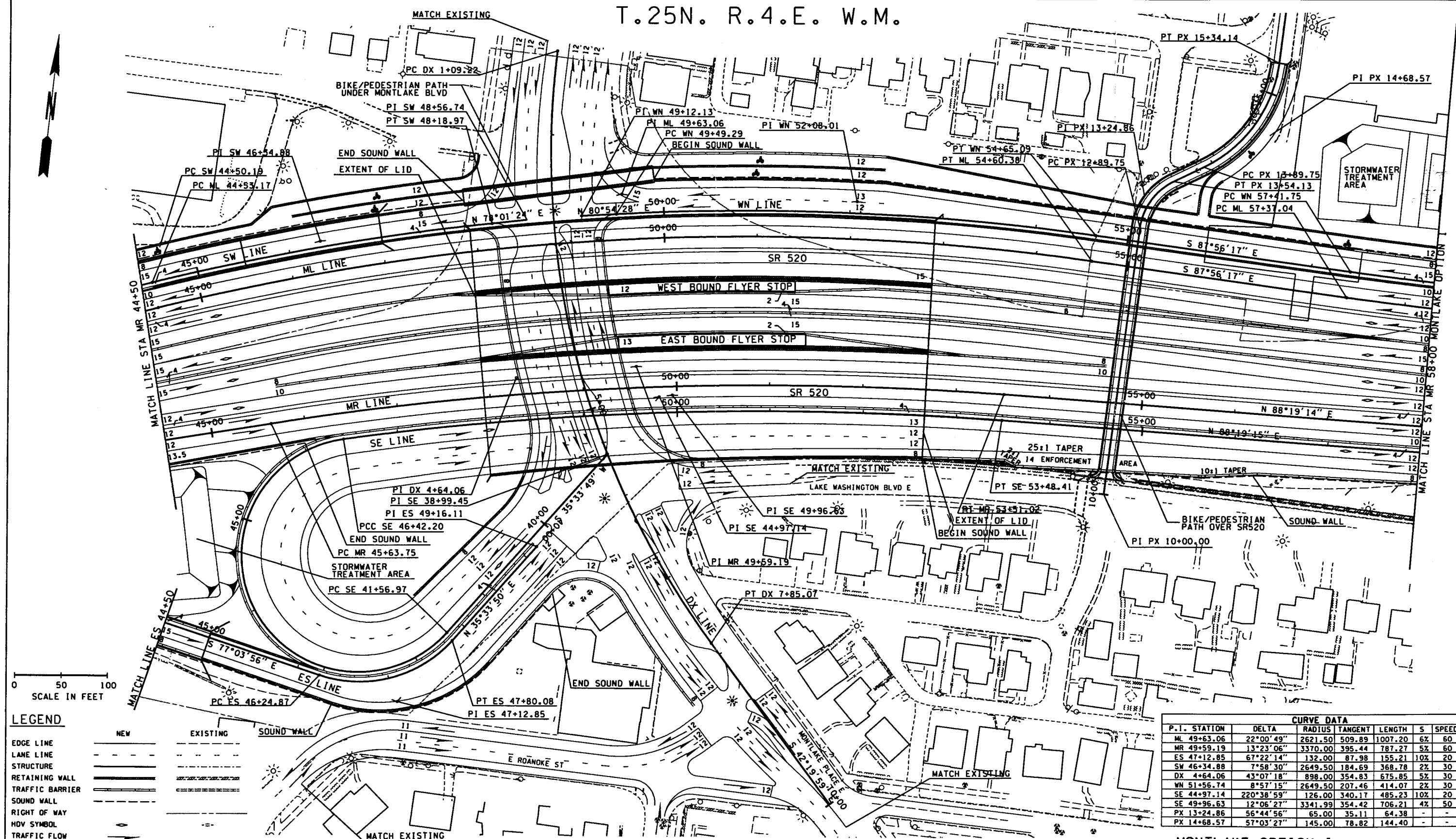
To further reduce the highway footprint, the path could be completely eliminated between Park Drive and Montlake Boulevard. The west terminus of the path would be at Park Drive. This would reduce the footprint by 14 feet for a length of approximately 600 feet. Hamlin Street and Shelby Street would be used to access Montlake Boulevard. For users going to the University District, the Burke-Gilman trail and other points north of the Montlake Bridge, this option would have no negative impact. It is likely that many would use Hamlin and Shelby even if the connection to Montlake was constructed. The route would be more circuitous for those traveling to and from the Montlake Playfield area. Hamlin Street and Shelby Street operate as one-way streets. Eastbound cyclists and all pedestrians would need to travel an additional 400 to 500 feet (using Hamlin) and westbound cyclists would need to travel an additional 1000 to 1100 feet (using Shelby). Attached is a figure showing how pedestrians and cyclists would access the University area and the Bill Dawson trail with and without the proposed tunnel to Montlake/Pacific Street (Concepts for Bike/Pedestrian Trail Connections).

The concept shown in the preliminary design alternatives is the most feasible alternative for providing a path with grade separation at Montlake Boulevard. WSDOT's goal throughout the SR 520 corridor has been to provide a contiguous trail without at-grade crossings. There is no other reasonable place to provide a grade-separated crossing of Montlake Boulevard.

If elimination of the grade separation at Montlake Boulevard is acceptable then the path between Park Drive and Montlake Boulevard could be eliminated. Pedestrian and bicycle traffic would continue through the Hamlin/Shelby neighborhood much as it does today. Service to the north would be adequate but there would be no system improvement to the Montlake Playfield area.



T.25N. R.4.E. W.M.



**LEGEND**

EDGE LINE	NEW	EXISTING
LANE LINE	---	---
STRUCTURE	---	---
RETAINING WALL	---	---
TRAFFIC BARRIER	---	---
SOUND WALL	---	---
RIGHT OF WAY	---	---
HOV SYMBOL	---	---
TRAFFIC FLOW	---	---
BRIDGE PIER	---	---

P.I. STATION		CURVE DATA					
		DELTA	RADIUS	TANGENT	LENGTH	S	SPEED
ML 49+63.06	22°00'49"	2621.50	509.89	1007.20	6%	60	
MR 49+59.19	13°23'06"	3370.00	395.44	787.27	5%	60	
ES 47+12.85	67°22'14"	132.00	87.98	155.21	10%	20	
SW 46+34.88	7°58'30"	2649.50	184.69	368.78	2%	30	
DX 4+64.06	43°07'18"	898.00	354.83	675.85	5%	30	
WN 51+56.74	8°57'15"	2649.50	207.46	414.07	2%	30	
SE 44+97.14	220°38'59"	126.00	340.17	485.23	10%	20	
SE 49+96.63	12°06'27"	3341.99	354.42	706.21	4%	50	
PX 13+24.86	56°44'56"	65.00	35.11	64.38	-	-	
PX 14+68.57	57°03'27"	145.00	78.82	144.40	-	-	

FILE NAME t:\CAD\Projects\ALT 3\TL-D31\TL-D31-SHT.dgn  
TIME 01:36:46 PM  
DATE 08/14/2002  
DESIGNED BY B. PHILLIPS  
ENTERED BY S. KEELS  
CHECKED BY K. WILCOX  
PROJ. ENGR. L. RUBSTELLO  
REGIONAL ADM. D. DYE

REVISION DATE BY

REGION NO. 10  
STATE WASH  
JOB NUMBER  
CONTRACT NO.  
LOCATION NO.

FED.AID PROJ.NO.

**DRAFT**  
FOR ALTERNATIVE COMPARISON ONLY  
P.E. STAMP BOX DATE

Washington State  
Department of Transportation

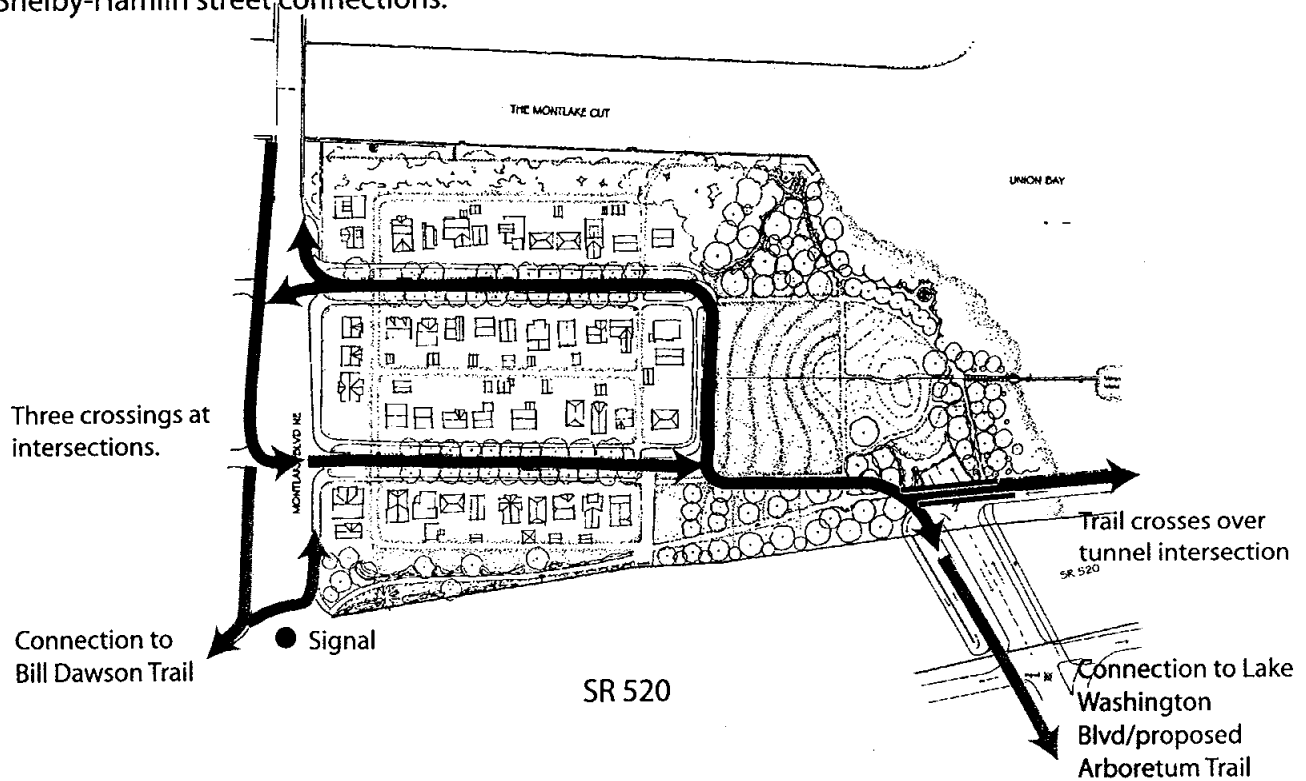
**MONTLAKE OPTION 1**  
SR 520  
TRANS-LAKE WASHINGTON PROJECT  
ALTERNATIVE 3  
PRELIMINARY DESIGN

SHEET  
OF  
SHEETS

# Concepts for Bike/pedestrian Trail Connections for Shelby-Hamlin-MOHAI Neighborhood

## Concept Alternative 1: Tunnel

SR 520 Bike-Ped Trail crosses over tunnel to meet Shelby-Hamlin street connections.



## Concept Alternative 2: No Tunnel

SR 520 Bike-ped Trail parallel to mainline, terminating at Park Drive and connecting to Shelby-Hamlin streets.

